

TREES WITHOUT BARK

SAID TO HAVE BEEN BROUGHT INTO BEARING.

A Florida Paper Reports an Example of Cows Acting as Horticulturists. The Facts in the Case Explained—Do Not Try the Experiment.

In William Campbell's orchard there is one row of trees loaded down with young pears but all the other trees are barren of fruit. Mr. Campbell and other growers attribute this to the fact that about a year ago cows broke into the orchard and ate the bark off one entire row. The bark was stripped all the way round each tree. They are loaded with pears and it is thought that destroying the bark caused the sap and strength of the tree to go into the fruit. To further this theory there is another tree in a different part of the orchard from which the cows ate the bark around one of the limbs. This branch is also covered with pears while the other limbs on the same tree are perfectly barren. The entire orchard is subject to the same conditions of heat and exposure. The general pear crop is a failure and in a number of orchards the amount of fruit will not justify the gathering. —Florida Times-Union.

Although you may have read the above in a fruit growers' journal do not try it. If cows ate all the bark from one row of trees, every tree would have died instead of being "loaded down with young pears." The cows simply ate off the old layers of bark which had performed all of its functions, except acting as a shelter for the new formed or forming layer under it. When the new bark is being deposited, say from May 1 to July 1, (depending on the climate) it is more firmly attached to the new sap wood layer than it is to the bark formed the year before. Therefore Mr. Campbell's cows left all the true and essential bark unharmed. A tree peels easily at a certain time and the novice thinks by such peeling he is taking all the bark off. Old bark bound trees are often made more vigorous and fruitful by peeling off the old bark. But it will not do to strip a tree as soon as the bark peels readily in the spring for at that time all the bark would come away and the tree would surely die, unless the debarked portions be at once covered with a suitable varnish covered with cloth or anything. The reasons why these pear trees were thrown into bearing are these:

The cows in gnawing the outer layer of bark wounded and bruised the new layer of bark and the new wood layer forming under it. This interfered seriously for a time with the downward flow of sap which the leaves were at that time elaborating in great quantities, causing an engorgement of the trees above the wounds and the formation of fruit buds without which no fruit could be produced the next year. The reason why the other pear trees in that neighborhood and orchard did not set "full of little pears" was because they were growing so fast in a regular, normal way, with high cultivation and rich soil, that no fruit buds were formed. Under natural conditions the vigor of a young tree is given entirely to branch growth to carry the coming fruit and a trunk growth to carry the branches and to an immense and intricate root system for the support of the whole structure. When all of these have been fairly well matured the tree is in a natural, normal condition to bear fruit, and plenty of it, for years. Yet we are anxious for first fruits. But precocious fruiting is at the expense of vigor and longevity. Many fruits have been specialized in the line of early production. Some varieties are so far specialized in that line that one or two crops exhausts them.

That nearly everything that endangers the life of a young vigorous tree throws it into fruitage is not strictly true. Anything interfering with the downward flow of elaborated plant food during the three summer months causes the formation of fruit buds and the next spring the tree fruits if the conditions are right. This interference may be of many kinds. Such as debarking, taking out a narrow circle of bark around trunk or branch, bruising all around with a hammer or driving nails or spikes into them no matter whether such spikes be rusty, "medicated," wood, copper, iron, or anything else. It is the hammering and the wounds in the bark and wood obstructing the downward nutritive flow that does the business and not any particular kind of spike. Therefore, when the itinerant medicated spike doctor comes along and agrees to throw your young and thrifty orchard into bearing for two bits a tree tell him to pass along. One more point. Young and vigorous growing trees may bloom enormously in the peculiar climates of this Coast and all fall off and no fruit set. This is not because there was a cold rain at blooming time. Nor a strong wind; nor imperfect pollination; nor to the absence of bees and insects to help pollinate the flowers, but simply because nature, on second thought, considered it better to extend and strengthen the trees root system before going into the fruit business. The roots are the last portions starved with sap and when they can draw unobstructed on the sap they starve the fruit bud. These are the reasons why blossoms do not set fruit. D. B. WIER.

Agricultural Experiment Stations. There are now fifty-three thoroughly established and equipped government experiment stations in the United States besides several state and private ones, and those owned by journals like The Rural New Yorker, Poplar Gardening, etc. There are a number specially devoted to Horticulture like those of Illinois, Iowa and Minnesota. All are working for the betterment of rural industries. These should have a tremendous effect on the immediate future of rural life and modes.

CHEMISTRY OF BUTTER.

Tests for Detecting Adulterations and Imitations.

Butter consists of the fat of milk and chiefly of that derived from the milk of the cow. It has a very peculiar and highly complex composition which to the average merchant, farmer or dairyman is of no interest. From a commercial standpoint, however, it has properties with which every dealer and consumer should be familiar in this age of adulteration. For instance, good butter is more or less granular and the more perfect the granular condition, the higher the quality. It also varies in color both with the breed of the cow and kind and quality of food, ranging from nearly white to deep yellow. When fresh, good butter has a pleasant odor and an agreeable taste, but the flavor like the color varies with the food which alters in kind and quality with the seasons. At ordinary temperatures it is easily cut or molded into shapes. It also readily melts into a transparent, light-colored oil. Butter, however, always contains more or less curd, which is very liable to undergo decomposition, hence the reason for the addition of salt which acts as a preservative.

When butter fat is freed from curd and not exposed to air it may be kept a long time without any apparent change. The curd and water may be separated by melting in a deep dish, when they will sink to the bottom while the fat will form an upper layer and may be poured or drawn off by the use of a siphon.

Owing to the large demand for this article we find much in the market which is being retailed as butter but which is adulterated for reasons known to every reader. It is an acknowledged fact that it is impossible to tell by taste, smell or color whether butter is genuine or not. The adulterants are usually salt, water and fats or oils, and to understand how to detect adulteration we must first know the analysis of pure butter and the usual adulterants, as oleomargarine, lard, mutton suet, etc. On examining the following table one may notice certain differences which will enable one to tell whether a sample is pure or not. These figures are the result of analysis made by the writer and are the average of a large number of samples examined during the past few months:

Sample	Moisture	Butter Fat	Water	Other
100 Parts	16.0	84.0	0.0	0.0
100 Parts	15.5	84.5	0.0	0.0
100 Parts	16.5	83.5	0.0	0.0
100 Parts	17.0	83.0	0.0	0.0
100 Parts	18.0	82.0	0.0	0.0
100 Parts	19.0	81.0	0.0	0.0
100 Parts	20.0	80.0	0.0	0.0
100 Parts	21.0	79.0	0.0	0.0
100 Parts	22.0	78.0	0.0	0.0
100 Parts	23.0	77.0	0.0	0.0
100 Parts	24.0	76.0	0.0	0.0
100 Parts	25.0	75.0	0.0	0.0
100 Parts	26.0	74.0	0.0	0.0
100 Parts	27.0	73.0	0.0	0.0
100 Parts	28.0	72.0	0.0	0.0
100 Parts	29.0	71.0	0.0	0.0
100 Parts	30.0	70.0	0.0	0.0

Certain variations are noticeable in the table which are such that a chemist working with a balance weighing 1-1,000 of one grain and with an ounce of butter can decide very quickly whether a given sample is pure or not. The amount of water varies, and being a mechanical mixture, depends on the skill of the butter worker for its presence in greater or less amount. It is unnoticeable to the ordinary tests of butter dealers. Salt is also a mechanical mixture but excess is detected by flavor as well as odor. Curd may be detected by looks as well as peculiarity when worked with a knife, as spreading bread. The specific gravity is one of the most important questions as it is much higher than the fats usually used to adulterate butter. If any of the above fats are mixed with butter the specific gravity alone will cause suspicion as to the quality. A fuller analysis as by melting, which in butter occurs at 85 to 93 and in oleomargarine only 78 to 82 while lard is as high as 109 to 114. The last column shows the percentage of fatty acids in butter to be considerably lower than in substances generally used in adulterations. A. A. CUNNINGHAM, F. C. S.

The Food of Owls. A large grey screech owl's nest was visited nearly every morning from the time the young hatched until they were able to fly. Mice were brought to the nest during the night, and nearly every one was the short tailed meadow mouse, the most injurious to the farmer. Invariably their heads were off and they were arranged around the margin of the nest with their tails outward. The smallest number at any time was nine and the number increased as the young birds grew. The highest number counted was twenty-seven. This proves the great value of these owls.

Looks vs. Quality. The conscientious fruit grower who plants for market and chooses fruits of fine quality thinking that merit alone will bring a high price, will find himself sadly mistaken. No matter how fine the quality, if the fruit is lacking in size and appearance it will not sell in competition with the large and beautiful fruit, often of poor quality. The fruit buyers buy fruit by its looks. They do not know fruits by name and they buy that which looks the best. They prefer the best quality but they cannot pick it out.

Tax Unimproved Land. A good plan of land taxation on this Coast would be to tax according to the value for crops in the region where located. That is, lands unimproved and not in use should be taxed at exactly the same rate per acre as adjacent lands of same quality under cultivation. That would make the holders of large tracts of fine land, waiting for a raise, tired.

ABOUT CHERRIES.

SOUR VARIETIES SAID TO BE MOST IN DEMAND.

History of the Industry With Some Characteristics of the Various Species and Classes in Common Use—All Varieties Are from One Origin.

The cherry has been cultivated in Europe about as long as any fruit and it is supposed the wild fruit was used before it was cultivated. There are many cherry varieties and these by selection have been differentiated into families or groups. That all of our cultivated cherries had their origin in the one wild species of Europe seems to be proven by the fact that trees have been grown with the characteristics of all the groups from the seed of one variety.

There are four quite distinct groups or families in cultivation, two of the sweet class and two of the sour or acid class. The first or sweet group with mild sub-acid fruit are trees of rapid and large growth and are divided into two sub-groups. The Biggeros, with firm fleshed or meaty fruit. These are white, yellow, red and black. The Napoleon Biggeros and Yellow Spanish are types. The Hearts, more usually with heart shaped fruits with softer sweeter pulp than the first group, but of the same colors. The black Tartarian and early Purple Guinge (pronounced jeans) are types of the heart shaped group. These divisions are arbitrary but they are useful for classification.

The acid cherries are divided into two sub-groups and are a little more clearly defined. They are the Dukes and Morellos. The Dukes in general appearance are about half way between the Morellos and sweets. The trees are small and generally of an upright growth. The fruit is generally smaller than the sweets, round or nearly round though some varieties incline to heart shape, with all the colors mentioned except yellow. The trees are hardier than the sweets but not so hardy as the Morello. The fruit is generally acid or sub acid, though the sweetest cherry when ripe, the Belle de Choisey, is placed in this sub group. The May Duke and Carnation are types of this group. They all do finely on this Coast. There are some very fine dessert cherries among them if allowed to become fully ripe. The May Duke nearly black—Reine Hortense—perhaps the most desirable on this Coast, is a beautiful tree and an enormous bearer of large, delicious fruit. The Belle de Choisey is a very pretty light coral red, round, sweet and delicious. The tree is very erect and is a great bearer. The trouble with the Dukes is that they are rather watery and tender for cooking, too soft for shipping and rather acid for dessert use. The May Duke, however, comes near being an exception. It is highly prized everywhere and especially where the climate is a little too cold for the sweets.

The Morello group comes last. These are usually small, round-headed trees with slender drooping branches and small thick leaves. This group is divided into two sub groups. One of which is the Kentish or Early Richmond, Early May, etc. It is a small, round, red, soft, acid fruit. It ripens early and quickly. The fruit, though watery, is highly esteemed for pies and canning everywhere except in California. There are several better though later cherries in this group than the Kentish. The Montmorencies belong in this group. Their foliage is smaller than either of the other groups and healthier in an unfavorable climate. These are the renowned cherry pie fruits. They are very dark red—nearly black—mostly round, quite firm in skin and flesh and very acid. Some of them are very rich when fully ripe. They ripen very slowly and are used for pies weeks before they are ripe. Few people know how good the common Morello is when thoroughly ripe, simply because they never saw a ripe one. The common black Morello, the type of the group, is the hardest and healthiest of our old varieties of cherries. Some of the varieties of this class are red and light red but none are as good as the common black Morello. The black English Morello is the largest of the class. The tree is small, conical, enormously productive, late and very acid, much like some of the plums and ripe American gooseberries, so acid that sugar will not sweeten them. This was once the most profitable cherry in the East but the plum curculio eventually destroyed all the fruit.

The Chicago market is usually abundantly supplied with cherries from the Eastern shore of Lake Michigan. The sour cherries bring about double the prices of the sweets and are taken in unlimited quantities. The same is true in other large cities. Here is a hint to the fruit growers of this Coast: There is money in the Morello group of sour cherries. They are prolific bearers, are much healthier and harder than the sweets, are better shippers and when cherries are plenty bring more money. The Montmorencies are perhaps really the best but the English Morello sells best though it may be the poorest cherry in the world. It makes fine sweet pickled.

Professors Budd and Gibbs have selected and imported many fine hardy varieties of sour cherries from the north of Europe and Russia. Some are showing good promise. This Coast is sending fine eating cherries East and leaving the demand for culinary cherries unfilled. There is no shipping market for soft sour cherries but there is for the right varieties.

Sour cherries can be grown on the mountains and in the colder portions of Oregon, Washington and Idaho. They should only be planted budded on mahaleb stocks. This root thrives on all soils. Even the sweet cherries thrive splendidly on it where the mazzard-stock must used on this Coast—would not live at all. D. B. WIER.

No Price on Women's Headgear.

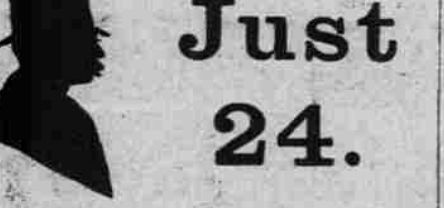
Two men stood in front of the show window of a Wabash avenue millinery concern looking at the styles and guessing at the prices. Of course neither had any sort of idea about the articles on exhibition. Then they went in and asked the floor walker how near they had come to guessing at the prices. After she had told them one of the men asked:

"Why don't you put the prices on your goods the same as clothiers do, on what they exhibit in their windows?" "You betray an ignorance that is pardonable under the circumstances. Here is a hat that we sell for \$1.50. Do not faint—there are hats for women that can be bought for that figure. Suppose we put that price on the hat and displayed it. No woman would ever purchase it, because she would be afraid if she did that her neighbor might have seen it and would know what she paid for it. One of the privileges of a woman is to deceive her sex about the cost of her hats and bonnets."—Chicago Tribune.

Practical Philanthropy. A sound scheme of philanthropy has been carried out with good results by M. Felix Deleuze, a gentleman of fortune in Paris, who some years ago, bereft of wife and children, adopted sixteen orphan girls. These he installed in his fine but desolate house under a suitable staff of governesses, and had them educated carefully under his own supervision. Two of the girls, now grown to be women, were happily married last year, three more, attended by nine of their companions, were wedded at a triple ceremony this spring, and two have taken the veil. Each girl is presented with \$4,000 and an excellent trousseau on her wedding day, but as the magnificent fortune of their benefactor is not to become their property they are brought up with no luxurious tastes or extravagant expectations.—New York Sun.

Married the Family. A story of a Florida man who married three wives from one family is going the rounds as something remarkable, but there was a family in Maine consisting of six girls, and of the six three married men named Bickwell, three married to the name of Young, one married a Livermore and one never was married. Another paradoxical feature is that there were only five husbands in all.

The explanation is that two of the Bickwells died, leaving widows, and Mr. Young, who had two of the sisters before, took one of the widows. Then Mr. Livermore took the other. So that there were seven weddings in the family, and only five men and five women concerned in them. Mr. Young had lost one wife before he began on this family.—Manchester Union.



Just 24. In just 24 hours J. V. S. relieves constipation and sick headaches. After it gets the system under control an occasional dose prevents return. We refer by permission to W. H. Marshall, Brunswick House, S. F.; Geo. A. Werner, 531 California St., S. F.; Mrs. C. Melvin, 136 Kearny St., S. F., and many others who have found relief from constipation and sick headaches. G. W. Vincent, of 6 Terence Court, S. F., writes: "I am 60 years of age and have been troubled with constipation for 25 years. I was recently induced to try Joy's Vegetable Sarsaparilla. I recognized in it at once a herb that the Mexicans used to give us in the early 50's for bowel troubles. (I came to California in 1853) and I knew it would help me and it has. For the first time in years I can sleep well and my system is regular and in splendid condition. The old Mexican herbs in this remedy are a certain cure in constipation and bowel troubles." Ask for

Joy's Vegetable Sarsaparilla For Sale by SNIPES & KINERSLY. THE DALLES, OREGON.

A Revelation. Few people know that the bright bluish-green color of the ordinary teas exposed in the windows is not the natural color. Unpleasant as the fact may be, it is nevertheless artificial; mineral coloring matter being used for this purpose. The effect is twofold. It not only makes the tea bright, shiny green, but also permits the use of "off-color" and worthless teas, which, once under the green cloak, are readily worked off as a good quality of tea.

An eminent authority writes on this subject: "The manipulation of poor teas, to give them a finer appearance, is carried on extensively. Green teas, being in this country especially popular, are produced to meet the demand by coloring cheaper black kinds by staining or facing with Prussian blue, titanium, gypsum, and indigo. This method is so general that very little genuine uncolored green tea is offered for sale." It was the knowledge of this condition of affairs that prompted the placing of Beech's Tea before the public. It is absolutely pure and without color. Did you ever see any genuine uncolored Japan tea? Ask your grocer to open a package of Beech's, and you will see it, and probably for the very first time. It will be found in color to be just between the artificial green tea that you have been accustomed to and the black tea. It draws a delightful canary color, and is so fragrant that it will be a revelation to tea-drinkers. Its purity makes it also more economical than the artificial teas, for less of it is required per cup. Sold only in pound packages bearing this trade-mark.

BEECH'S TEA "Pure As Childhood." If your grocer does not have it, he will get it for you. Price 60c per pound. For sale at Leslie Butler's, THE DALLES, OREGON.

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